

IN THE CLAIMS:

1-37. (cancelled)

38. (new) A method for printing of a recording medium, comprising:

5 generating potential images of images to be printed on a potential image carrier;

 to develop the potential images, using a liquid developer that comprises a transparent photo-polymerizable carrier liquid and charged colorant particles suspended therein;

10 transporting the developer via an applicator roller to the potential image carrier in a quantity that is substantially constant per time and area to form a developer film in a developing zone between the potential image carrier and the applicator roller for development of the images, the developer film adjacent to the potential image carrier comprising said photo-polymerizable carrier liquid enriched with said colorant particles in regions in which potential
15 images are present on the potential image carrier and comprising said photo-polymerizable liquid substantially depleted of said colorant particles in regions in which no potential images are present, the developer film splitting at an end of the developing zone into an film adhering to the potential image carrier comprising the developed potential image and a film adhering to the
20 applicator roller comprising said photo-polymerizable liquid with residual colorant particles;

 transferring the image film with the developed potential images from the potential image carrier onto the recording medium such that the colorant particles and a portion of the photo-polymerizable liquid in which the colorant
25 particles are arranged migrates from the image film; and

 fixing on the recording medium with a UV radiation the image film with the potential images to be developed such that the colorant particles of the developed potential images are embedded in a solid, transparent polymer

mass via photo-polymerization, and otherwise the photo-polymerizable liquid is solidified into a transparent film.

39. (new) A method according to claim 38 in which the photo-polymerizable liquid is high-ohmic.

5 40. (new) A method according to claim 38 in which the photo-polymerizable liquid comprises acrylester.

41. (new) A method according to claim 38 in which the liquid developer is produced via suspension of solid particles in the photo-polymerizable liquid.

10 42. (new) A method according to claim 41 in which charge control substances that influence the charging of the suspended colorant particles is added to the photo-polymerizable liquid.

15 43. (new) A method according to claim 41 in which initiators that accelerate the photo-polymerization of the liquid are added to the photo-polymerizable liquid.

44. (new) A method according to claim 41 in which surface tension-influencing and viscosity-controlling agents are added to the photo-polymerizable liquid.

20 45. (new) A method according to claim 41 in which a proportion of colorant particles in the liquid developer is > 10%.

46. (new) A method according to claim 41 in which a composition of the photo-polymerizable liquid and of the colorant particles suspended therein is selected such that the solid particles in the photo-polymerizable liquid charge with a preferred polarity.

25 47. (new) A method according to claim 41 in which a bias voltage is applied to the applicator roller such that a transition of the colorant particles of

the liquid developer into the image areas of the potential image carrier is aided.

48. (new) A method according to claim 4 in which an intermediate image carrier onto which the colorant particles and a portion of the photo-polymerizable liquid are transferred is arranged between the potential image carrier and the recording medium.

49. (new) A method according to claim 48 in which the transfer of the image film and of the photo-polymerizable liquid onto the intermediate carrier recording medium is assisted by an electrical field existing between the intermediate image carrier recording medium and the potential image carrier or intermediate image carrier and recording medium.

50. (new) A method according to claim 38 in which a removal roller that is brought into contact with the photo-polymerizable liquid is used to reduce the photo-polymerizable liquid.

51. (new) A method according to claim 50 in which an auxiliary potential is applied to the removal roller such that the colorant particles inking the potential image are repelled by the removal roller.

52. (new) A method according to claim 50 in which the photo-polymerizable liquid is reduced by approximately 50% by the removal roller.

53. (new) A method according to claim 38 in which, given multi-color printing, various color separations are successively applied to the potential image carrier and successively transferred onto the recording medium or an intermediate carrier.

54. (new) A method according to claim 38 in which, in multi-color printing, color separations are collected on the potential image carrier and are subsequently transferred onto the recording medium or an intermediate carrier.

55. (new) A method according to claim 38 in which the UV fixing is optimized via adjustment of a spectral distribution and power density of the radiation.

5 56. (new) A method according to claim 38 in which a radiation source is used for the fixing that radiates a combination of ultraviolet light, visible light and infrared radiant heat.

57. (new) A method according to claim 56 in which a wavelength of the ultraviolet light lies in a range from 200 to 400 nm.

10 58. (new) A method according to claim 56 in which a wavelength of the visible light lies in a range from 400 to 700nm.

59. (new) A method according to claim 56 in which a wavelength of the radiant heat lies in a range from 700 nm to 10 μ m.

15 60. (new) A method according to claim 56 in which the radiation is adjusted such that the visible light and the radiant heat generate heat required for activation of the photo-polymerization and the UV radiation cures the photo-polymerizable liquid.

61. (new) A method according to claim 56 in which a wavelength of the radiation are selected such that the print image is additionally provided with gloss and/or is additionally abrasion-resistant.

20 62. (new) A method according to claim 57 in which a wavelength of the UV radiation is set from 320 to 400 nm when a greater penetration depth and a more significant volume effect in the recording medium is to be achieved.

25 63. (new) A method according to claim 57 in which a wavelength of the UV radiation is selected from 280 to 320 nm when a smaller penetration depth and a more significant curing of the print image on the surface of the recording medium is to be achieved.

64. (new) A method according to claim 57 in which a wavelength of the UV radiation is selected from 200 to 280 nm when a more significant curing of the surface of the print image on the recording medium is to be achieved.

5 65. (new) A method according to claim 64 in which an inert gas is used when an intensified surface hardening is to be achieved.

66. (new) A method according to claim 65 in which nitrogen is used as an inert gas.

10 67. (new) A method according to claim 56 in which the recording medium is exposed to a corona exposure before and/or after the UV curing.

15 68. (new) A method according to claim 67 in which corona radiation, infrared radiation, visible light and UV radiation of a wavelength 320 to 400 nm is combined when a good liquefaction of the print image and a good bonding with a surface of the recording medium is to be achieved with high surface gloss.

69. (new) A method according to claim 55, in which a post-fixing with a UV radiation of a wavelength 200 to 280 nm is implemented when a hard surface of the print image is to be achieved.

20 70. (new) A method according to claim 38 in which a UV radiation is used to increase a viscosity of the image film.

72. (new) A method according to claim 71 in which the image film is additionally exposed to a corona radiation.

25 73. (new) A method according to claim 71 in which the viscosity increase of the image film is such that the transfer printing of the image film onto the recording medium occurs via contact pressure.

74. (new) An electrographic printer or copier device, comprising:

an imaging station at which potential images of images to be printed are generated on a potential image carrier;

5 a developer station at which to develop the potential images, a liquid developer is used that comprises a transparent photo-polymerizable carrier liquid in charged colorant particles suspended therein;

10 an applicator roller which transports the developer to the potential image carrier in a quantity that is substantially constant per time and area to form a developer film in a developing zone between the potential image carrier and the applicator roller for development of the potential images, the developer film adjacent to the potential image carrier comprising said photo-polymerizable carrier liquid enriched with said colorant particles in regions in which potential images are present on the potential image carrier and comprising said photo-polymerizable liquid substantially depleted of said colorant particles in regions in which no potential images are present, the
15 developer film splitting at an end of the developing zone into an image film adhering to the potential image carrier comprising the developed potential image and a film adhering to the applicator roller, said film comprising said photo-polymerizable liquid with residual colorant particles;

20 a transfer station at which the image film with the developed potential images is transferred from the potential image carrier onto the recording medium such that the colorant particles and a portion of the photo-polymerizable liquid in which the colorant particles are arranged migrates from the image film; and

25 a fixing station where the image film with the potential images to be developed is fixed on the recording medium with a UV radiation such that the colorant particles of the developed potential images are embedded in a solid, transparent polymer mass via photo-polymerization, and otherwise the photo-polymerizable liquid is solidified into a transparent film.

75. (new) A method for printing of a recording medium, comprising:

generating potential images on a potential image carrier;

to develop the potential images, using a liquid developer that comprises a transparent photo-polymerizable carrier liquid and charged colorant particles suspended therein;

5 transporting the developer via an applicator roller to the potential image carrier to form a developer film in a developing zone between the potential image carrier and the applicator roller for development of the images, the developer film adjacent to the potential image carrier comprising said photo-polymerizable carrier liquid enriched with said colorant particles in regions in
10 which potential images are present on the potential image carrier and comprising said photo-polymerizable liquid substantially depleted of said colorant particles in regions in which no potential images are present, the developer film splitting at an end of the developing zone into an image film adhering to the potential image carrier comprising the developed potential
15 image and a film adhering to the applicator roller;

transferring the image film with the developed potential images from the potential image carrier onto the recording medium such that the colorant particles and a portion of the photo-polymerizable liquid in which the colorant particles are arranged migrates from the image film; and

20 fixing on the recording medium with a radiation the image film with the potential images to be developed such that the colorant particles of the developed potential images are embedded in a solid, transparent polymer mass via photo-polymerization.